

## **1 INTRODUCTION**

### **1.1 Background of the Project**

At present, the electricity supply to Sai Kung Town is mainly from the two primary substations at Tui Min Hoi and Wong Chuk Wan. They are in-fed by a single 132kV and two sets of parallel 33kV overhead pole lines respectively. These powerlines are inadequate to meet the projected demand for power. In order to maintain a secure supply to and cater for the local growth of electricity in Sai Kung Town area, including the supply to the High Islands Pumping Station, it will be necessary to establish a new 132kV in-fed circuit to Sai Kung Town. Without the installation of this proposed circuit, the supply security to that area will not be improved and may even deteriorate due to the growing load demand.

The proposed 132 kV Overhead Pole Line and Underground Cable from the existing Po Lam Substation to the existing Tui Min Hoi Substation - Circuit No. 2 (hereafter referred to as the Project) commences from Tseung Kwan O, running along the ridges to Pak Kong Village in Sai Kung. The two ends of the route are linked to the existing substations by underground cables. Besides connecting the overhead pole line to the substations, underground cables would also be installed for crossing the Clear Water Bay Road at Pik Uk and the cultivation at Ho Chung. The route length of the proposed overhead pole line and underground cable are about 6.5km and 5.5km respectively. The locations of the routes are shown in Figure 1.1.

The two pairs of existing 33kV powerlines will be removed within 2 years of commissioning of the proposed 132 kV powerline. The route alignments of the 33kV overhead pole lines are shown in Figure 1.2.

The proposed project is a Designated Project under the EIAO by virtue of Section Q.1 of Schedule 2 of the Ordinance. The project profile covers one designated project which is the construction and operation of 132kV overhead pole line and underground cable, parts of which lie within the Ma On Shan Country Park and Conservation Areas in Tseng Lan Shue, Ho Chung and Pak Kong. The Environmental Protection Department has issued an EIA Study Brief in June 1998 for the preparation of an EIA study.

Maunsell Environmental Management Consultants Limited in association Urbis Limited were commissioned by CLP Power Hong Kong Limited in October 1998 to conduct the EIA study. ERM was commissioned under a separate contract to conduct an Ecological Impact (Terrestrial) Assessment for the Project for incorporation into the Environmental Impact Assessment (EIA) study.

### **1.2 Purpose of the EIA Study**

The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the construction and operation of the proposed project and related activities taking place concurrently. This information will contribute to decisions by the Director for Environmental Protection on:

- the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the project;
- the conditions and requirements for the detailed design, construction and operation of the proposed project to mitigate against adverse environmental consequences wherever practicable; and
- the acceptability of residual impacts after the proposed mitigation measures are implemented.

The following are the key objectives:

- to describe the proposed project and associated works together with the requirements for carrying out the proposed project;
- to identify and describe the elements of the community and environment likely to be affected by the proposed project and/or likely to cause adverse impacts to the proposed project, including both the natural and man-made environment;
- to identify and quantify emission sources and determine the significance on impacts on sensitive receivers and potential affected uses;
- to identify and quantify any potential losses or damage to flora, fauna and natural habitats;
- to identify any potential impacts to the historical, archaeological and cultural resources within the study area and propose measures to mitigate these impacts;
- to identify any potential landscape and visual impacts and to propose measures to mitigate these impacts;
- to propose the provision of infrastructure or mitigation measures so as to minimise pollution, environmental disturbance and nuisance during construction and operation of the Project;
- to identify, predict and evaluate the residual (i.e. after practicable mitigation) environmental impacts and the cumulative effects expected to arise during the construction and operation phases of the Project in relation to the sensitive receivers and potential affected uses;
- to identify, assess and specify methods, measures and standards, to be included in the detailed design, construction and operation of the project which are necessary to mitigate these environmental impacts and reducing them to acceptable levels;
- to investigate the extent of side-effects of proposed mitigation measures that may lead to other forms of impacts;

- to identify constraints associated with the mitigation measures recommended in the study; and
- to design and specify the environmental monitoring and audit requirements necessary to ensure the implementation and the effectiveness of the environmental protection and pollution control measures adopted.

### **1.3 The Approach**

In accordance with the technical requirements mentioned in the EIA Study Brief, all adverse impacts to the affected part of the Ma On Shan Country Park and Conservation Areas in Tseng Lan Shue, Ho Chung and Pak Kong, irrespective of whether they are caused by the parts of the project within or outside the limits of the country park and conservation areas were assessed. The criteria in the relevant sections of the Technical Memorandum on the EIA Process of the EIAO have been referenced. Mitigation measures have been recommended to minimise environmental impacts, where necessary.

Impacts on some environmental aspects (including air quality, land use, people and communities, agriculture and fisheries activities), noise impacts and waste management implications were considered not issues of concern for this Project and hence not covered by the EIA Study Brief. Therefore, details of assessment of these environmental aspects will not be undertaken for the purpose of the current study.

### **1.4 Report structure**

This EIA Report consists of 10 sections, as follows:

- 1) Introduction
- 2) Project Characteristics
- 3) Ecological Impact
- 4) Hazard to Health
- 5) Landscape and Visual Impact
- 6) Water Pollution
- 7) Impact on Cultural Heritage
- 8) Environmental Monitoring and Audit
- 9) Conclusions and Recommendations
- 10) Schedule of Recommended Mitigation Measures